

# BAD HOUSING A CLOG ON WAR WORK

**Concentration of Labor Around Munition Factories and Shipbuilding Yards Causes Condition Government Must Tackle**

A FEW CAUSES OF INEFFICIENT LABOR ON WAR WORK

By Katharine Wright

THE war has added a new insistence to the need for decent living conditions for the workers gathered about our great factories. The "housing question," long the almost exclusive possession of social students and economic reformers, has suddenly become one of the great problems of the nation. For bad housing stands squarely across the path of our great war supplies programme.

The national government, slow in sensing this danger amid the multiple demands that followed our unprepared entrance into the conflict, has moved at last and its action is beginning to bear fruit. A hundred million dollars has been apportioned to meet this need and is being spent. Enough has been done to give light on how the rest can be done, but not enough to more than touch the edges of the great need. This article and others to follow it present facts which should be known to every one interested in our winning the war and the means by which it is to be done.

For years before the storm broke the country had been learning slowly of the evils that infest the city slums and the squalid cabins such as were revealed in the Pittsburgh survey—of their efficiency as breeding places of rebellious discontent, sickening waste, disease, immorality and crime.

## War Brings a New Point of View

The war has added to the problem immeasurably and has brought it home to industrial captains and government officials from a new angle, a point of view that strikes home with a power which the humanitarian and social arguments never had. For our mushroom munition plants have drawn thousands of workers into places where decent living could not be had for any money. And the great directors of labor have learned by little experience that without decent living a man cannot do good work.

War came with a rush to many communities. Take, for example, one drowsy little town on the lower reaches of the Delaware River. In 1914 it was dreamily pursuing the routine of a commonplace existence. It had a population of about 14,000, of which 13 per cent was negro. It had thirty-one policemen and forty-one saloons, a public school system, two or three parks, a public library, a sewer system and filtered water supplied by a private company. About 8,300 dwellings were inhabited by an average of between four and five to a house.

War came. Four munitions plants selected neighboring sites for their activities. Immigration had ceased so the demand for workers had to be met from native sources. Negroes came in droves from the South and there were race riots. Single family dwellings were converted into rooming houses with a family in each room. Houses were used that had no water and no toilets, with leaking roofs and flooded cellars. Accommodations were imperative for the thousands of white laborers that thronged the shipyards.

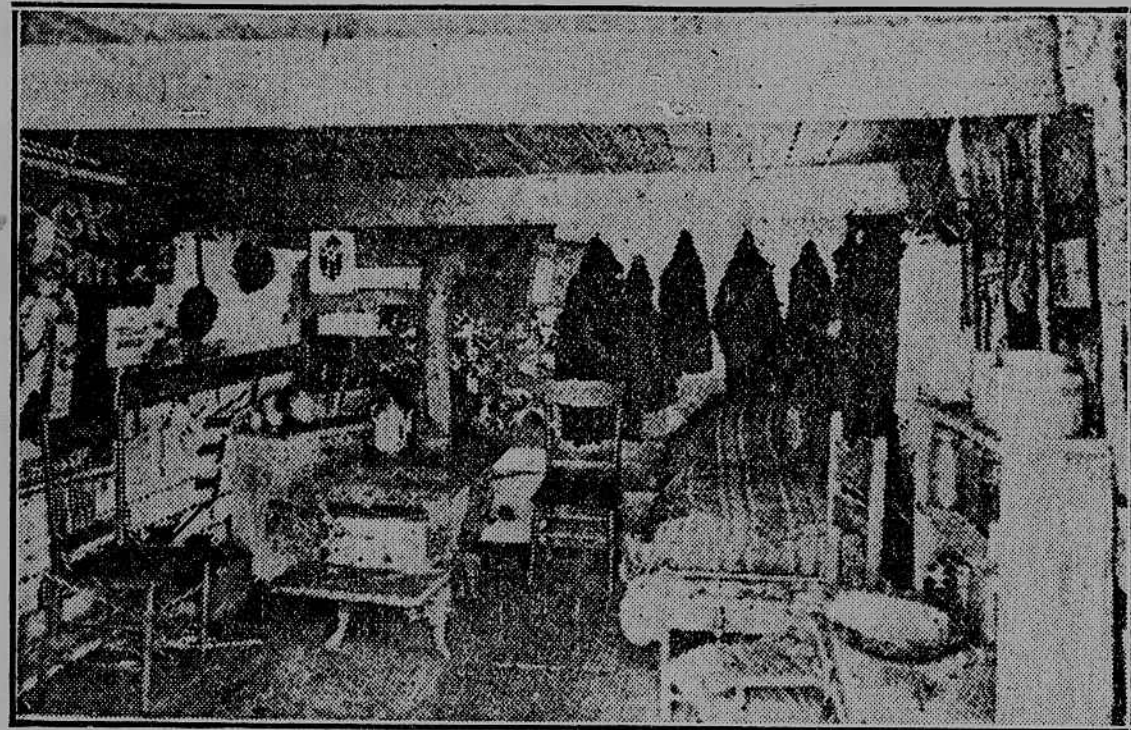
## Munition Workers Sleep in Garage

To-day this town has a population of 80,000. Only 1,300 houses have been added to those already standing in 1914. Some 140 or more employees of one shipbuilding company live in a garage and there are seventy-eight more in an old building where every room is crowded with double-decker beds. Twenty men sleep in the old poolroom on the ground floor and from six to twelve in each room upstairs. A yard water closet is the only toilet for these men, and a yard hydrant and a sink the only water supply.

Decreased productive power due to housing evils is a slipping cog in the great American war machine. A sickly workman will in a short time be an inefficient workman, and if the output of war industries is to be satisfactory it is of the utmost importance that the health of the workers be guarded.

At present the vitality of workers is lowered by disturbed sleep that brings with it little or no refreshment. Sometimes the bedding is insanitary, vermin infested. Sometimes the sleeping quarters are badly overcrowded.

Added to the disadvantages of loss of sleep, there is lack of relaxation for waking hours in labor camps and communities where no provision



A war workers' room—used by three shifts, who keep the beds filled twenty-four hours a day.

for the amusement of the workers has been made.

Moral degradation soon results from lack of privacy, while physical discomfort induces discontent and lowers ambition.

American wage earners lose on an average about nine days a year because of sickness alone. On a basis of 300 working days during the year, this would be an average loss of 3 per cent of the working time.

According to the Philadelphia Housing Association, Philadelphia's death rate increased from 16.16, a thousand in 1916 to 17.1 in 1917, as the workers flocked into the war plants there. New York's death rate was only 13.78 and that of Chicago 13.78. Philadelphia's infant mortality rate, 100.8 in every 1,000 in 1916, was 111 a thousand last year, compared with 101.3 for New York and 88.8 for Chicago.

In certain labor camps where congestion reigns some 2,877 men are allowed less than 300 cubic feet of air space each; only 100 are allowed 500 cubic feet each.

All these conditions unite to produce big labor "turnovers," the constant shifting of men from one plant to another, with the consequent losses due to breaking in the new men, big employment bureaus, and so forth, and thus impedes our progress in winning the war.

## The Cost of Replacing Men

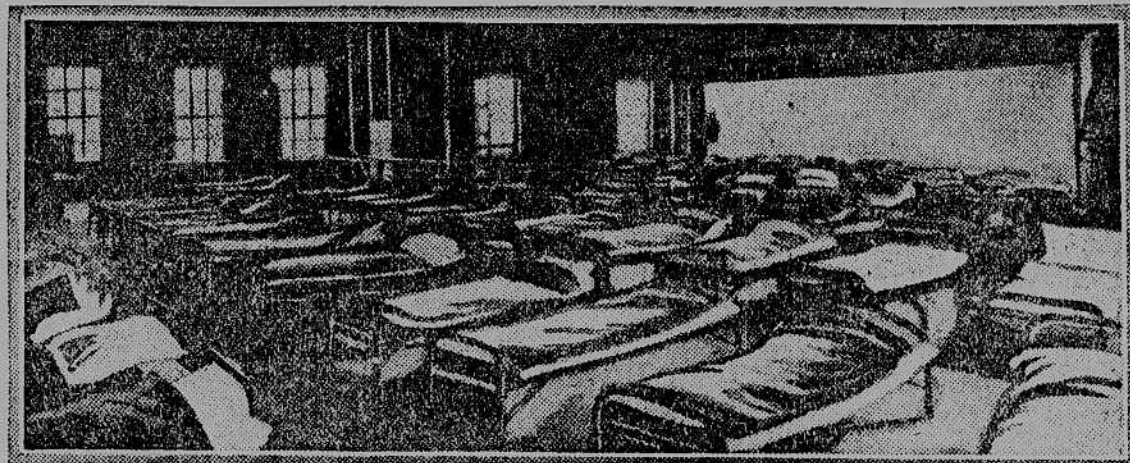
According to records dealing with labor turnover it costs \$10 to replace an ordinary laborer, \$300 to replace a skilled workman.

No complete survey of the amount of labor turnover in plants throughout the country is as yet to be had. While the Bureau of Labor Statistics has been investigating this problem for over two years, the result of its investigations has not yet been made public.

According to W. A. Grieves, of the Jeffery Manufacturing Company, twenty metal plants in the Middle West were forced to hire a total of 69,000 men in order to maintain an average of 44,000 hands during the year. Thus the labor turnover for these plants was 157 per cent for the year.

The average turnover for the last year in fifty-seven Detroit plants was 252 per cent.

While a conservative estimate for several large manufacturing concerns would be 100 per cent, some firms have increased to 400 per cent.



A dormitory at one of the big shipbuilding plants.

Courtesy of "The Survey."

Professor Carleton Parker finds that the average duration of a job in certain kinds of work is as follows:

Lumber camps	Days
Construction work	15-30
Harvesting	10
Mining	7
Canning	60
	30

Losses from labor turnover in the last year in a group of twelve metal working factories totalled \$831,000. The annual turnover in some instances reaches 500 per cent.

In December, 1917, the Fore River Shipbuilding Company reported that it had hired 5,200 men in four months to increase its force to 2,500.

Munition works at Bridgeport hired 10,000 men to increase the working force to 2,500, while Bethlehem Steel Works engaged 32,000 men to effect an increase of 12,000.

During the same year a manufacturing concern at Bucyrus, Ohio, brought 150 employees to that city at great effort and expense. After a few days thirty remained, the other 120 having left owing to the impossibility to find comfortable homes.

Meanwhile six cement companies discovered that their labor turnover for three years had increased 103 per cent a year, and one public service corporation admitted a labor turnover of 1,100 per cent.

In April, 1918, R. E. Lee, of the Firestone Company, stated that Goodyear, Goodrich and Firestone had a floating population of 2,000 men a week; many hundreds of workers who reach Akron do not take their trunks from the station.

Last May the American International Shipbuilding Corporation, at Hog Island, reported that 136,000 men had been hired during the previous six months in order to get the

requisite number of skilled mechanics.

England is more advanced than the United States in the housing of her workers. She has invested \$700,000,000 in war housing, as against a bare \$100,000,000 here—not yet all spent by any means—but even she still has cities and districts that have escaped methodical and thorough housing measures. For example, it is a matter of record that owing to deterioration due to bad housing, only 1,000 out of 11,000 men from Manchester were physically fit to enter the army.

The size of the problem that confronts the government in its endeavor to improve conditions of housing for war workers by appropriation is far from small. In reality a gigantic task has been undertaken. Every new or expanded shipyard, gun or shell factory, aeroplane shop or other mushroom munitions city presents an immense problem. But, in addition, there are the problems of factories that were already in existence, multiplied by that sudden expansion.

In 1917 the motor industry furnished finished products valued at \$1,000,000,000. These included cars, submarine chasers and many war machines. In order to accomplish this output the force of workers was increased—and the housing problems of a hundred plants.

The monthly output of shoes by the leather industry amounts to 1,500,000 Pershing trench shoes, which means a similar increase in workers and problems.

Each of the following thirteen industries—boots and shoes, cotton manufacturing, cotton finishing, hosiery and underwear, woollen, silk, men's ready-made clothing, iron and steel, car building and repairing, cigar manufacturing, automobile manufacturing, leather manufacturing

and paper making—has increased the total amount of its payroll, according to a comparison of the payroll for March, 1918, with that of February, 1918. This increase is due to swollen forces to meet war needs, rather than to higher wages. The housing problem affects each.

Woollen, hosiery and underwear and cotton manufacturing show the largest increases, of 23.6 per cent, 17.8 per cent, 15.7 per cent, respectively, while the increases of the others range from 2.4 per cent to 14.8 per cent.

In February, 1918, 7,157 men and 4,058 women were employed in certain munitions plants throughout the United States.

In 1916-'17 the United States Employment Service directed approximately 458,000 persons to employment and it is now directing an average of 100,000 persons monthly.

More than 265,000 shipyard volunteers have been enrolled by the United States Public Service Reserve. There were almost no houses ready for them.

If New York yards are to produce 800,000 tons of shipping, according to the programme of the Emergency Fleet Corporation, in 1918 housing accommodations must be found for 1,500 workmen in shipyards on and adjacent to New York yards.

There are some eighteen shipyards on New York Harbor and the vicinity occupied in constructing and repairing ships for the Emergency Fleet Corporation and the Navy Department. These do not include several yards constructing submarines, submarine chasers and other small craft. In 1914 about 9,415 were employed, when war was declared 15,490, and in February, 1918, 31,636. The nine construction yards working on large ships for the Emergency Fleet Corporation employed only 1,430 men in 1914,

3,800 in April, 1917, and 14,500 in January, 1918. Probably 26,000 extra men will be needed.

Districts in need of additional housing facilities are the north shore of Staten Island, Newark Bay—60,000 new workers have been brought to Newark by war industries—Newburgh, N. Y., and Port Jefferson, L. I.

On the north shore of Staten Island there are three large yards working on Emergency Fleet Corporation contracts. Some of the workmen live in Brooklyn and Manhattan, and a few in The Bronx. This means a long trip by trolley, ferry, subway or elevated train. On Newark Bay there are three new and large shipyards, employing upward of 7,250 men. This number is constantly increased, with a relative increase in the demand for suitable accommodations.

## Philadelphia Homes Taxed for 18,000 Men

In the Philadelphia district alone provision by individual homes, apartments and dormitories for the accommodation of more than 18,000 ship and munitions workers must be provided.

The labor camps throughout the country have suffered as severely as the munitions factories and shipyards from defective housing. Sleeping quarters, for example, are greatly overcrowded, the beds are usually infested with vermin, and men are bunked under conditions which do not permit of proper air space per capita.

In Ohio, alone, there are 108 labor camps with a population of 7,712. These include 17 construction camps, 67 railroad camps and 24 factory and mill camps. Here again a high percentage of labor turnover was noticed. In 1917 in 39 camps laborers remained for only one month or less, while in 10 camps workers could not be persuaded to remain for more than one day.

Even the centre of the government at Washington is being most seriously hampered by lack of housing in the District of Columbia. The following table shows the situation:

Government clerks now in Washington, D. C.	20,000
Members of families	5,000
Officers and their families	5,000
Total	30,000
Rooms listed in all room listing agencies January 14	1,743
Will accommodate	3,488
Must be provided for	26,514

Fifty per cent of all persons offered appointments by the Civil Service Commission are now declining

appointments, owing to the shortage of housing accommodations. Others are not taking examinations.

Workers in the following war industries will be among those affected by improvement in industrial housing:

Casting—Aluminum and brass, malleable steel, gray iron.

Forgings and Stampings—Drop forgings (light, heavy), gun forgings, shell forgings (light, small), stampings (heavy, light), sheet metal workers (heavy, light).

Rubber Products—Solid tires, pneumatic tires, tubes and accessories, mechanical goods, clothing, footwear, ball, airplane fabric, medical supplies, gas masks, hard rubber.

Clay Products—Chemical stoneware, apparatus, sewer pipe, hollow tile, insulators, tableware, conduits, brick (fire, paving, building).

Machinery and Machine Products—Electrical appliances, machinery, machine shop equipment specialties, bar metal products.

Chemical Oils and Paint—Oils, ref. and gr. mfg., jobbers, paints, paint division, varnish division, shellac division, chemicals, acids, fertilizers, ind. chem.

Automotive (Textiles and Clothing)—Knit goods, shorts and overalls, sewing machine products, uniforms, garments, caps and hats, woollens.

Engineering (Wood and Leather)—Paper boxes, wood cases, leather, truck bodies, millwork.

The housing situation in towns engaged on army and navy contracts has varied considerably. In some cases the shift of local labor from less essential industries to war industries has been general. No housing shortage has therefore occurred. On the other hand, increase of labor has necessitated accommodations for thousands of men. Arsenal, navy yards, gun proving grounds and nitrate powder plants have required the building of complete new communities, fully equipped with houses, streets, schools, churches, recreation buildings and public utilities.

Congestion is the crowning evil that must be eliminated or, at least, greatly reduced, if we are to win the war. At the present time it often happens that a bed is occupied for twenty-four hours by men working in three shifts, and this is only one example of deplorable sleeping conditions.

The "take a roomer campaign," induced by the war, has not only added to the general congestion, but created family problems of a most

**"Take a Roomer" Campaign in Some Districts Causes New Family Problems Where Excessive Crowding Raises the Death Rate**

serious nature and raised the death rate.

When one roomer has been taken in there is nothing to prevent another and another being added to the family group. Bridgeport was one of the first cities to suffer from the roomer evil. When the rapid industrial expansion produced an increase in population of about 70 per cent in two years, homes that had never before been open to strangers responded to patriotic appeal and threw open their doors. For a time six and seven people slept in one room.

Besides increasing the death rate, overcrowding, bad ventilation and defective sewerage produce constant sickness. Workers are constantly attacked by rheumatism, colds, typhoid and tuberculosis.

Meanwhile, architects have been busy drawing plans for workingmen's dwellings, and now as never before both looks and comfort have been seriously taken into consideration, while the lessons learned from past experiences are being used in bettering modern construction.

One of the largest and most attractive settlements now under construction for the housing of war workers is at Yorkships Village, near Camden, N. J., where the United States will soon house thousands of shipworkers, employed by the New York Shipbuilding Corporation, manufacturing ships for Uncle Sam. The first thousand of these houses are to be ready for occupancy in October, and another thousand is just being put under construction. When completed the village will house close to ten thousand people.

The Emergency Fleet Corporation, some months ago, organized a department of housing and transportation, with Merritt Taylor, the well known transportation expert, as director, with J. Willson Smith of the Land Title Company, of Philadelphia, as assistant director. Mr. Kohn, the well known New York architect, was made director of production, and he has organized an efficient staff which includes town planners and landscape architects from this locality. Under the direction of the government, the New York Shipbuilding Corporation organized a subsidiary company, known as the Fairview Realty Company, to have special charge of the development, and appointed Wallace Benedict general manager. Lockwood-Greene & Co., of Boston, did the engineering work on the project, and are now in charge of the construction as "engineer-managers."

Electus D. Litchfield, of New York, was selected as the architect of the village early in February; since which time Mr. Litchfield, with his associate, Pliny Rogers, and an office full of draftsmen have been working night and day producing plans for transforming a suburban farm on the outskirts of Camden and a short walk from the shipyards into a veritable Colonial town. Mr. Litchfield's plan provides for a road way from the shipyard, which terminates in a town square and commercial centre in the heart of the tract, while on the streets radiating from the latter are groups of brick houses in architecture appropriate to the vicinity of Philadelphia and the Delaware River. Of the first 1,000 houses under construction there are about 250 groups of twenty-seven different types in seventy combinations. Every house is complete with hot and cold water systems, modern plumbing, up-to-date toilet fixtures, electric light, cellar furnace, hot water and gas range.

Most of the houses are of brick, a few of stone, stucco or frame. It is said that Yorkships' order for brick was the largest of its kind ever given. It is being furnished by five different manufacturers, and will be varied in color to prevent monotony.

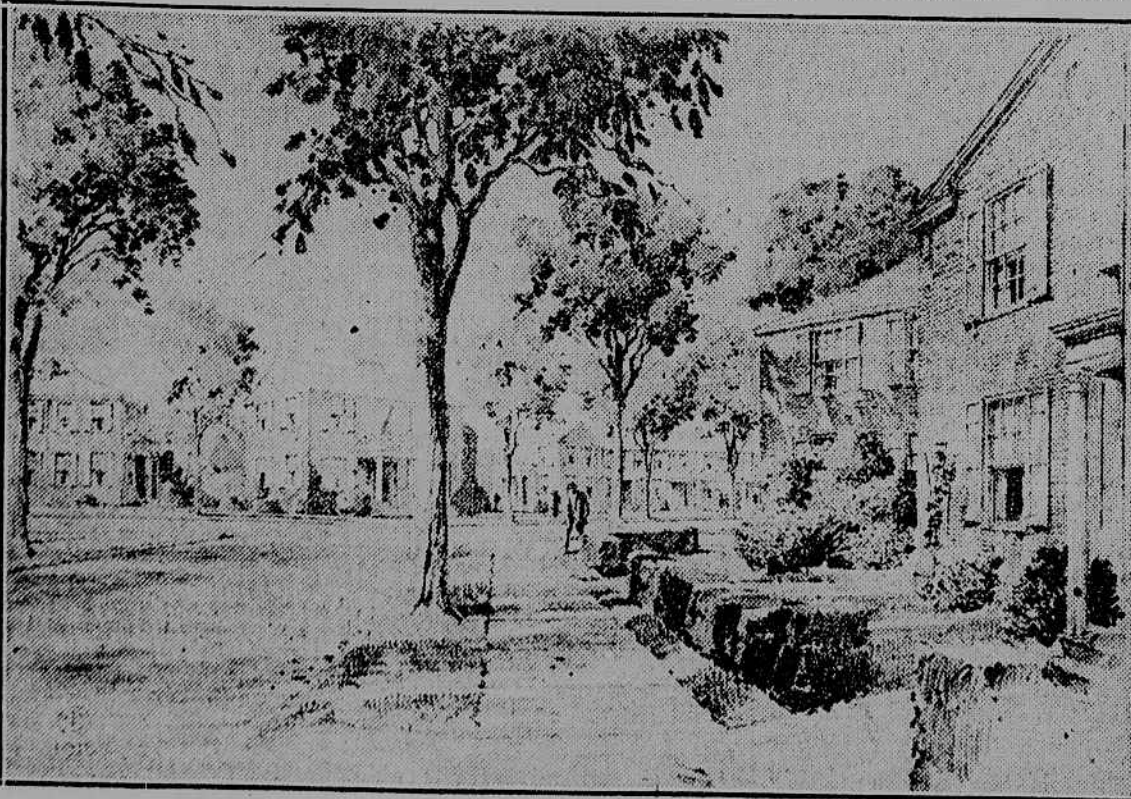
The majority of the houses have slate roofs. Four kinds of roofing material are being used. These include a new one, which so successfully gives the effect of old-fashioned ribbed copper or red tin that only an expert can detect the difference. One group of houses has gable roofs, another flat roofs, and another roofs like those on the old Colonial houses of Salem and Portsmouth.

Another device by which Mr. Litchfield has fought sameness is the use of twenty different types of porches.

The plan provides for broad streets and drives. The streets will be named for American naval heroes or for famous American ships. There will be a Paul Jones Street, Constitution Street and an Albemarle Square. There will be backyards, public squares and playgrounds near the schools.

There will also be churches, moving picture theatres and suitable accommodations for a police force, a fire department and a Red Cross station.

At present there are between 3,000 and 4,000 workmen on the job; nearly 500 dwellings are under roof, and the number is increasing by twenty to thirty per day.



Yorkships Village, near Camden, is to be one of the first of the model housing towns completed for the use of war workers. These two architects' drawings show the type of houses that are now being built there.

